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CLAIMS:

What is claimed is:

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- 1 1. A method of managing copies of virtual volume data,
2 comprising:
3 receiving an access request directed to an original
4 virtual volume;
5 mapping the access request to a secondary virtual
6 volume; and
7 performing the access request on one or more
8 physical volumes associated with the secondary virtual
9 volume.
- 1 2. The method of claim 1, wherein the original virtual
2 volume is associated with one or more original physical
3 volumes, and wherein the one or more original physical
4 volumes are different from the one or more physical
5 volumes.
- 1 3. The method of claim 1, wherein the original virtual
2 volume is associated with one or more original physical
3 volumes, and wherein the one or more original physical
4 volumes are the same as the one or more physical volumes.
- 1 4. The method of claim 2, wherein the one or more
2 original physical volumes are on a first type of data
3 storage media, and wherein the one or more physical
4 volumes are on a second type of data storage media.

FOOTNOTES

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1 5. The method of claim 4, wherein the first type of
2 data storage media and the second type of data storage
3 media is one of magnetic tape media, magnetic disk media,
4 optical media, floppy diskettes, CD-ROM media, DVD-ROM
5 media, random access memory (RAM), and memory card media.

1 6. The method of claim 1, wherein mapping the access
2 request to a secondary virtual volume includes
3 redirecting the access request from a first secondary
4 virtual volume to a second secondary virtual volume.

1 7. The method of claim 6, wherein the access request is
2 redirected in response to a fault in a physical volume of
3 the first secondary virtual volume.

1 8. The method of claim 6, wherein the access request is
2 redirected in response to a command to redirect the
3 access request to the second secondary virtual volume.

1 9. The method of claim 6, wherein the first secondary
2 virtual volume includes physical volumes on a first media
3 type and the second secondary virtual volume includes
4 physical volumes on a second media type.

1 10. The method of claim 9, wherein performing the access
2 request on one or more physical volumes associated with
3 the secondary virtual volume includes converting the
4 access request to a format suitable for the second media
5 type.

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A) 1 11. The method of claim 1, wherein the access request is
2 received using a first communication protocol and wherein
3 performing the access request on one or more physical
4 volumes associated with the secondary virtual volume
5 includes converting the access request from the first
6 communication protocol to a second communication
7 protocol.

1 12. An apparatus for managing copies of virtual volume
2 data, comprising:
3 means for receiving an access request directed to an
4 original virtual volume;
5 means for mapping the access request to a secondary
6 virtual volume; and
7 means for performing the access request on one or
8 more physical volumes associated with the secondary
9 virtual volume.

1 13. The apparatus of claim 12, wherein the original
2 virtual volume is associated with one or more original
3 physical volumes, and wherein the one or more original
4 physical volumes are different from the one or more
5 physical volumes.

1 14. The apparatus of claim 12, wherein the original
2 virtual volume is associated with one or more original
3 physical volumes, and wherein the one or more original
4 physical volumes are the same as the one or more physical
5 volumes.

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1 15. The apparatus of claim 13, wherein the one or more
2 original physical volumes are on a first type of data
3 storage media, and wherein the one or more physical
4 volumes are on a second type of data storage media.

1 16. The apparatus of claim 15, wherein the first type of
2 data storage media and the second type of data storage
3 media is one of magnetic tape media, magnetic disk media,
4 optical media, floppy diskettes, CD-ROM media, DVD-ROM
5 media, random access memory (RAM), and memory card media.

1 17. The apparatus of claim 12, wherein the means for
2 mapping the access request to a secondary virtual volume
3 includes means for redirecting the access request from a
4 first secondary virtual volume to a second secondary
5 virtual volume.

1 18. The apparatus of claim 17, wherein the access
2 request is redirected in response to a fault in a
3 physical volume of the first secondary virtual volume.

1 19. The apparatus of claim 17, wherein the access
2 request is redirected in response to a command to
3 redirect the access request to the second secondary
4 virtual volume.

1 20. The apparatus of claim 17, wherein the first
2 secondary virtual volume includes physical volumes on a
3 first media type and the second secondary virtual volume
4 includes physical volumes on a second media type.

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1 21. The apparatus of claim 20, wherein the means for
2 performing the access request on one or more physical
3 volumes associated with the secondary virtual volume
4 includes means for converting the access request to a
5 format suitable for the second media type.

1 22. The apparatus of claim 12, wherein the access
2 request is received using a first communication protocol
3 and wherein the means for performing the access request
4 on one or more physical volumes associated with the
5 secondary virtual volume includes means for converting
6 the access request from the first communication protocol
7 to a second communication protocol.

1 23. A computer program product in a computer readable
2 medium for managing copies of virtual volume data,
3 comprising:
4 first instructions for receiving an access request
5 directed to an original virtual volume;
6 second instructions for mapping the access request
7 to a secondary virtual volume; and
8 third instructions for performing the access request
9 on one or more physical volumes associated with the
10 secondary virtual volume.

1 24. The computer program product of claim 23, wherein
2 the original virtual volume is associated with one or
3 more original physical volumes, and wherein the one or
4 more original physical volumes are different from the one
5 or more physical volumes.

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1 25. The computer program product of claim 23, wherein
2 the original virtual volume is associated with one or
3 more original physical volumes, and wherein the one or
4 more original physical volumes are the same as the one or
5 more physical volumes.

1 26. The computer program product of claim 24, wherein
2 the one or more original physical volumes are on a first
3 type of data storage media, and wherein the one or more
4 physical volumes are on a second type of data storage
5 media.

1 27. The computer program product of claim 26, wherein
2 the first type of data storage media and the second type
3 of data storage media is one of magnetic tape media,
4 magnetic disk media, optical media, floppy diskettes, CD-
5 ROM media, DVD-ROM media, random access memory (RAM), and
6 memory card media.

1 28. The computer program product of claim 23, wherein
2 the second instructions for mapping the access request to
3 a secondary virtual volume include instructions for
4 redirecting the access request from a first secondary
5 virtual volume to a second secondary virtual volume.

1 29. The computer program product of claim 28, wherein
2 the access request is redirected in response to a fault
3 in a physical volume of the first secondary virtual
4 volume.

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1 30. The computer program product of claim 28, wherein
2 the access request is redirected in response to a command
3 to redirect the access request to the second secondary
4 virtual volume.

1 31. The computer program product of claim 28, wherein
2 the first secondary virtual volume includes physical
3 volumes on a first media type and the second secondary
4 virtual volume includes physical volumes on a second
5 media type.

1 32. The computer program product of claim 31, wherein
2 the third instructions for performing the access request
3 on one or more physical volumes associated with the
4 secondary virtual volume include instructions for
5 converting the access request to a format suitable for
6 the second media type.

1 33. The computer program product of claim 23, wherein
2 the access request is received using a first
3 communication protocol and wherein the third instructions
4 for performing the access request on one or more physical
5 volumes associated with the secondary virtual volume
6 include instructions for converting the access request
7 from the first communication protocol to a second
8 communication protocol.

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